

IX. *Descriptions of new species of Hymenopterous Insects of New Zealand, collected by C. M. WAKEFIELD, Esq., principally in the neighbourhood of Canterbury.* By FREDERICK SMITH.

[Read 7th June, 1876.]

THIRTY new species of *Hymenoptera* are described in the present paper, nearly all having been taken in the Canterbury Province of the south Island; thus a large area is left much less carefully entomologically explored. It may, therefore, I think, be confidently expected that, when the north Island has been worked as well as the south, at least double the number at present discovered will be added to the Hymenopterous fauna of New Zealand. Captain Hutton, in his observations on the indigenous insects, observes, "the *Hymenoptera* are poorly represented, about eighteen species only being yet known." The addition now made to the list increases it to forty-eight.

The *Hymenoptera* are less diligently collected than the more popular orders, but I feel confident that the list will ultimately number, if it do not exceed, one hundred species. The *Formicidæ* must surely consist of more than five species, the number at present discovered, and the fossorial group will in all probability prove to be much more extensive. Of the bees but few species are known, but the genus *Megachile* must, I imagine, find some representative species, since several have been found in Tasmania, and Australia has at present yielded about forty species. No species of *Scolia* has yet been discovered, although both the above-named countries have several indigenous representatives of the genus; these localities have also produced many species of *Mutillidæ*, but not a single species has, to my knowledge, been found in New Zealand; not a single wasp has been taken, but I fully expect species of the genus *Odynerus* will be discovered, it being well represented in Australia, and a few species have come from Tasmania likewise.

Mr. Wakefield's collection contained nearly all the species previously described, and two of *Tenthredinidæ*,

one being the *Blennocampa adumbrata*, Klug; this may be the same insect recorded by Captain Hutton under the name of *B. cerasi*; this European species has doubtless been imported with trees or flowers. In the *Reise der Novara*, Dr. Sichel has described a species of *Prosopis*, no doubt the first from New Zealand; three are added to the list in the present paper. It is somewhat remarkable that only one species of the family *Thynnidæ* should have been discovered, *Rhagigaster Novaræ*, described by De Saussure; as both Tasmania and Australia are rich in species. The genera *Rhyssa*, *Mesostenus* and *Derecyrtæ*, I believe are for the first time added to the Hymenopterous fauna of New Zealand, the first by one of the finest species of the genus hitherto discovered.

## TENTHREDINIDÆ.

### Fam. SIRICIDÆ.

#### *Derecyrtæ deceptus*. (Pl. IV. fig. 6.)

Female.—Length 5 lines. Ferruginous, abdomen rufescent, variegated with yellowish-white. Head globose, shining, and with scattered punctures; a broad yellowish-white line round the orbits of the eyes, slightly interrupted at their vertex; two lines of the same colour run longitudinally over the vertex, and unite with another line that borders its posterior margin; the clypeus and mandibles yellowish, the latter obliquely truncate, and with four black teeth; the flagellum black, except its basal joint and the curved scape, both of which are ferruginous. Thorax: the prothorax forming a short neck; a line on each side of its posterior margin running to the base of the wings; two oblique stripes on the mesothorax inclining inwardly, and uniting with a transverse waved stripe at its basal margin, two spots on the scutellum and also the post-scutellum, yellowish-white; wings fulvo-hyaline, the nervures ferruginous, the stigma fuscous; a large yellowish spot beneath the wings, and the posterior coxæ pale beneath; the legs pale ferruginous. Abdomen yellowish towards the base.

Prof. Westwood has figured three species of this genus in his "*Thesaurus Entomologicus Oxoniensis*," two of which are from Brazil, the other from Chili. This species bears a very strong resemblance to *Tenthredo nassata* of Linnæus.

PUPIVORA.

ICHNEUMONIDES.

*Ichneumon perfidiosus.* (Pl. IV. fig. 5.)

Male.—Length 6—7 lines. Head and thorax black; abdomen red, with the apex black. Head: a triangular yellow spot at the inner orbit of the eyes opposite the anterior ocellus; the clypeus, mandibles and palpi ferruginous, the later palest; usually a minute ferruginous spot on the scape in front, sometimes obsolete. Thorax: the lateral margins of the prothorax, the scutellum, post-scutellum, sometimes a spot also on the disk of the mesothorax, yellow or reddish-yellow; two ovate yellow spots beneath the wings; occasionally a reddish spot on the metathorax in the enclosed horseshoe-shaped space at its base; wings slightly fulvo-hyaline, the nervures fuscous, the stigma and nervures at the base of the wings pale ferruginous; legs pale ferruginous, with the coxæ and trochanters black. Abdomen smooth and shining, with three, but sometimes four, of the basal segments ferruginous.

Var. B.—The fourth segment more or less red.

*Ichneumon invectus.*

Female.—Length 5—5½ lines. Black; mandibles ferruginous towards their apex, the palpi pale rufo-testaceous. Thorax shining, the mesothorax with a few very fine scattered punctures; the scutellum and post-scutellum ferruginous; wings fulvo-hyaline, the nervures pale ferruginous; the legs fulvo-ferruginous, rather stout, with the coxæ and trochanters black. Abdomen shining, impunctate, with the two basal segments fulvo-ferruginous; the base of the petiole black.

*Ichneumon conspiratus.*

Female.—Length 4½ lines. Ferruginous, with the apex of the abdomen black. Head: a black or dusky spot on the face on each side of the clypeus; the antennæ fuscous above. Thorax: two narrow lines on the mesothorax anteriorly; the scutellum, post-scutellum, and two spots on the metathorax, yellow; the mesothorax and head closely and rather strongly punctured, the metathorax smooth and shining; the wings fulvo-hyaline, their nervures rufo-

testaceous; legs ferruginous, of a lighter red than the thorax; the posterior coxæ greatly swollen and yellow above. Abdomen smooth and shining, with the three basal segments red, the rest black.

*Ichneumon placidus.*

Female.—Length 4 lines. Ferruginous, with the head and thorax more or less black. Head black, the orbits of the eyes white; the clypeus, cheeks and scape in front ferruginous; the mandibles white. Thorax smooth and shining; the prothorax above, and the anterior portion of the mesothorax, black; the margin of the prothorax, two longitudinal stripes on the mesothorax, the scutellum and post-scutellum, white; wings fulvo-hyaline, the nervures pale rufo-testaceous; the legs ferruginous, with a white spot on the coxæ above, also a longitudinal white line beneath the wings. Abdomen smooth and shining.

*Ichneumon insidiator.*

Male.—Length 6—7 lines. Black; a yellow spot on each side of the face, and a smaller one beneath the insertion of each antennæ; the palpi pale flavo-testaceous; the flagellum fulvous beneath; sometimes a fulvous spot on the scape beneath. Thorax: the scutellum, tegulæ, and an oblong spot beneath them, yellow; wings fulvo-hyaline, the nervures and stigma pale ferruginous; the legs flavo-rufous, the tibiæ and tarsi palest; the extreme apex of the posterior femora and tibiæ fuscous. Abdomen: the apical margin of the basal segment, and the second and third segments, flavo-rufous.

Var. B.—The minute spots on the face, beneath the scape of the antennæ, frequently obsolete.

This is very probably the male of *Ichneumon lotatorius*, of Fabricius.

*Ichneumon consanguineus.*

Male.—Length 6—7 lines. Black; the flagellum of the antennæ fulvous beneath. Thorax: a transverse yellow line beneath the wings; the stigma and nervures of the wings ferruginous; the wings pale fulvo-hyaline; the legs fulvo-ferruginous; the coxæ, trochanters and tips of the posterior femora and tibiæ black. Abdomen: the second and third segments fulvo-ferruginous.

*Ichneumon exhilaratus.*

Male.—Length  $6\frac{1}{2}$  lines. Ferruginous, and variegated with yellow. Head: the front, below the antennæ, the mandibles and scape in front, yellow; the flagellum, and scape behind, black. Thorax: the scutellum, post-scutellum and tegulæ yellow; wings fulvo-hyaline, with the nervures black, the latter pale ferruginous at the base of the wings; the anterior and intermediate legs yellow, with their coxæ ferruginous; the posterior femora, trochanters and coxæ ferruginous, tibiæ and tarsi yellow. Abdomen ferruginous, with the basal segment yellow.

*Ichneumon deceptus.*

Female.—Length  $6\frac{1}{2}$ —7 lines. Head and thorax black, abdomen ferruginous. The inner orbits of the eyes above the antennæ, and sometimes a spot on each side of the clypeus, close to the eyes, yellow, the latter spot frequently obsolete; the scape in front and the mandibles ferruginous. Thorax: the lateral margins of the prothorax more or less yellow; two ovate spots beneath the wings, the scutellum and post-scutellum, and a spot on the posterior coxæ above, yellow, the latter sometimes obsolete; wings flavo-hyaline, the nervures fusco-testaceous, the inferior margin of the stigma and the nervures at the base of the wings pale ferruginous, occasionally a yellow spot on the disk of the thorax; legs ferruginous, the coxæ being more or less black. Abdomen ferruginous, impunctate, smooth and shining, sometimes a little inclined to become fuscous towards the apex.

This is a variable insect; in some examples there is a yellow or ferruginous spot on the metathorax, situated in the horseshoe-shaped enclosed space; other specimens have the two apical segments of the abdomen black, or more or less so; a series of examples present other slight variations.

CRYPTIDES.

*Mesostenus albopictus.* (Pl. IV. fig. 1.)

Female.—Length 5—7 lines. Black, variegated with white lines and spots; legs ferruginous, black, and white. Head: orbits of the eyes white, interrupted at the vertex; the front below the antennæ and the palpi white; joints 8—12 of the antennæ white, sometimes the 13th also. Thorax: a line on each side of the prothorax, five large

maculæ on the sides of the mesothorax beneath the wings, a subquadrate one on the sides of the metathorax, white; a spot on the mesothorax above, the scutellum and post-scutellum, and a large trilobate spot at the apex of the metathorax, white; wings hyaline, the nervures black; legs ferruginous, the anterior tibiæ swollen; the anterior coxæ white, the intermediate pair sometimes more or less so, and also the posterior tarsi, the base and apex of the latter black; the tips of the posterior femora and apical half of the posterior tibiæ black. Abdomen: the apical margin of all the segments white.

Male.—This sex closely resembles the female, and has joints 13—19 of the antennæ white.

Taken in North Island by J. D. Enys, Esq.

#### OPHIONIDES.

##### *Ophion inutilis.*

Female.—Length  $4\frac{1}{4}$  lines. Rufo-ferruginous; the basal portion of the antennæ, to the extent of about one-third of their length, ferruginous. The prothorax, the scutellum and the tibiæ and tarsi paler than the rest of the thorax; the wings hyaline and iridescent, the nervures fuscous, more or less ferruginous at the base of the wing; the stigma pale rufo-ferruginous. Abdomen rufo-fuscous towards the apex.

##### *Ophion peregrinus.*

Female.—Length 7 lines. Rufo-ferruginous; a narrow line at the inner orbits of the eyes, and a broad one behind them, yellow; antennæ black, with the scape and two basal joints of the flagellum rufo-ferruginous. Thorax: the anterior margin of the prothorax, the tegulæ, and a spot beneath the wings, another beneath the posterior wings close to the intermediate coxæ, the sides of the metathorax, and the scutellum and post-scutellum, yellow; the wings hyaline and iridescent, the nervures fuscous, all the nervures more or less ferruginous at the base of the wings as well as the stigma; the claws of the tarsi black. Abdomen more or less fuscous at the apex beneath.

##### *Paniscus ephippiatus.*

Female.—Length  $6\frac{1}{2}$  lines. Rufo-ferruginous; the space between the ocelli black; the apical third of the antennæ fuscous; tips of the mandibles black. Thorax: the meso-



thorax black; the metathorax transversely finely striated; wings hyaline and iridescent, the stigma, costa and nervures dark fuscous; the claws of the tarsi black. Abdomen rufo-ferruginous to the extent of the two basal segments, from thence fusco-ferruginous, becoming gradually darker to the apex; the ovipositor black.

#### PIMPILIDES.

##### *Rhyssa antipodum.* (Pl. IV. fig. 4.)

Female.—Length 15 lines; of the ovipositor 27 lines. Dark ferruginous, variegated with yellow. Head: the orbits of the eyes, slightly interrupted opposite the insertion of the antennæ, and the clypeus, yellow; the palpi rufo-testaceous; the apical third of the antennæ yellowish-white, the apex fuscous. Thorax: the mesothorax transversely rugose-striate; the lateral margins of the prothorax, the tegulæ, and a spot beneath the wings, the scutellum, post-scutellum, and the apical half of the metathorax, yellow; wings hyaline or faintly fulvous, the nervures black; legs ferruginous; the anterior and intermediate coxæ and trochanters and the posterior trochanters, yellow. Abdomen smooth and shining, at the apical margin of the first and second segments a yellow fascia, which emits a short yellow line in the middle; each of the four following segments have a longitudinal oblong spot in the middle, and also an elongate one laterally; the sixth has two yellow spots, and the two following segments have their posterior margins yellow, extending to the apical segment also, which has two additional yellow lines beneath the spot.

This species has a close general resemblance to the *Pimpla clavata* of Fabricius.

Two specimens from the North Island, and one taken on a black birch-tree at Oxford, near Christchurch.

#### EVANIIDÆ.

##### *Fœnus crassipes.*

Female.—Length 5 lines. Black, the abdomen variegated with sericeous-grey pile. Head subglobose, the front covered with a thin silvery-white pubescence; the anterior margin of the face and clypeus, and also the tips of the mandibles, ferruginous; the latter bidentate at the apex, and having a strong acute tooth towards their base on the inner margin. Thorax: the mesothorax trans-

versely striated, with two oblique ferruginous sutures that meet at the scutellum, the latter subrugose; the hinder margin of the prothorax with a fringe of silvery-white pubescence; the wings hyaline and iridescent, the nervures black, the stigma pale testaceous; the femora and tibiae ferruginous beneath, as well as the intermediate and posterior coxæ; the posterior legs incrassate, their tibiae being clavate; all the tarsi ferruginous. Abdomen clavate and covered with silvery-grey pile, the apical margins of the segments rufo-piceous, the abdomen having a tessellated appearance.

*Fœnus unguicularis.* (Pl. IV. fig. 8.)

Female.—Length  $5\frac{1}{2}$  lines. Black, the abdomen tessellated, with sericeous-grey pile. Very like the preceding species, from which it differs in being rather larger, the abdomen more elongate and much more attenuated at the base; the anterior margin of the face and clypeus not ferruginous. The mesothorax not so strongly striated, and the oblique sutures not at all, or very faintly ferruginous; the wings have the nervures blacker, the stigma is also darker; the legs resemble those of the *F. crassipes*, but the claws of the posterior tarsi are long and curved, being twice as long as in that species; they are ferruginous.

The male closely resembles the female, but its legs are black, the abdomen elongate and only slightly clavate; the legs are also more slender.

## MYRMICIDÆ.

*Tetramorium nitidum.*

Female.—Length  $3\frac{1}{2}$  lines. Black, smooth and shining; mandibles obscurely ferruginous; a longitudinal impressed line in front of the anterior ocellus, which emits a channel to the insertion of each antenna, at about half its length. The thorax oblong-ovate; the metathorax with a central, longitudinal, deep sulcation, which is smooth and shining; wings subhyaline and iridescent, with the nervures testaceous. Abdomen ovate, smooth and shining; the first joint of the petiole clavate, the second subglobose.

Worker.—Length 2 lines. Jet black, smooth and shining; mandibles ferruginous. Thorax oblong, rounded anteriorly and very convex, compressed posteriorly and strangulated; the metathorax deeply grooved posteriorly and subdentate; the tips of the femora slightly ferruginous;



abdomen ovate, smooth and shining; the first joint of the petiole clavate, the second globose.

Male.—Length  $2\frac{1}{4}$  lines. Jet black, smooth and shining; Head subopaque, pubescent and longitudinally striated. The mesothorax with a few abbreviated striæ in front, and, as well as the scutellum and metathorax, smooth and shining; the latter deeply sulcated posteriorly; wings subhyaline and iridescent, with the nervures testaceous. Abdomen and nodes of the petiole smooth and shining.

Taken at Peel Forest, at Oxford, and at Lake Coleridge.

*Tetramorium striatum.*

Female.—Length 4 lines. Black: head nearly as wide as the thorax, and longitudinally striated; the mandibles bidentate, and, as well as the apex of the apical joint of the antennæ, ferruginous; the extreme apex of the scape, and also of the base of the flagellum, usually more or less ferruginous. Thorax: longitudinally striated, the base of the metathorax finely transversely so; the metathorax bidentate, with a deep, smooth sulcation between; the trochanters, tips of the femora, and the tarsi, rufo-piceous. Abdomen smooth and shining, and having a few scattered pale fulvous hairs; the nodes of the petiole striated. The wings subhyaline, the nervures fusco-ferruginous; the thorax oblong-ovate.

Worker.—Length  $2\frac{3}{4}$  lines. Black, sometimes more or less obscurely rufo-piceous; the head smooth and shining; the mandibles and front ferruginous, varying much in the depth of colouring; the apical joint of the antennæ more or less rufo-piceous. Thorax oblong, strangulated in the middle; the prothorax rounded in front, slightly transversely striated above, as well as the metathorax, which is bidentate; the legs more or less brightly fusco-ferruginous. Abdomen smooth and shining, ovate, and with a few scattered pale hairs.

Male.—Length  $3\frac{1}{2}$  lines. Black and shining; the head pubescent, transverse, longitudinally striated, with the eyes prominent. The mesothorax and scutellum longitudinally striated, the former smooth and shining anteriorly; the metathorax shining, and longitudinally sulcate; the wings subhyaline, the nervures testaceous. Abdomen: the first node of the petiole clavate and slightly striated, the second also striated and globose; the abdomen smooth and shining.

*Ant. 7-11*

Taken on the west coast of South Island, at Peel Forest, and at Kelly's Creek.

### POMPILIDÆ.

#### *Priocnemis conformis.*

Female.—Length 4 lines. Head and thorax black, abdomen ferruginous. The head covered with short, fine, golden pubescence, which is most dense and bright on the face; the apical half of the mandibles ferruginous; the palpi pale ferruginous; the antennæ black. Thorax covered with short, bright-golden pubescence; the metathorax rounded; the coxæ, trochanters, and two apical joints of the tarsi, black; wings pale fulvo-hyaline, pale fuscous from the stigma to the apex, the cloud crossing both wings; the nervures ferruginous towards the base and fuscous at the apex of the wings. Abdomen smooth and shining, with the extreme base black.

Male.—Rather smaller than the female, similar in colour and pubescence, but more slender; the fourth and following segments black.

#### *Priocnemis maculipennis.*

Female.—Length 5 lines. Head and thorax black, abdomen and legs ferruginous. The front covered with golden pile; the anterior margin of the clypeus, the three basal joints of the antennæ, the palpi and mandibles, ferruginous; the palpi pale; the base of the mandibles, and tips of the joints of the antennæ, black. The thorax covered with short, decumbent, golden pubescence, usually more or less abraded on the mesothorax, and thin and sparing on the pectus; wings fulvo-hyaline, the nervures pale ferruginous; the stigma black, from which a pale fuscous fascia crosses the wings to the middle of the third discoidal cell; the claw-joint of the tarsi black; the legs very slightly spinose; those on the posterior tibiæ very short, fine and placéd in rows at the side of a slightly-raised longitudinal carina. Abdomen smooth and shining.

This insect, of which I have seen two examples, is very like the common *P. ferox*, described by Fabricius, but the metathorax is of a different form, being rounded, and not swollen at the sides or so abruptly truncate; the fascia on the wings, almost smooth legs, and black apical joint of the tarsi, characterize more than a variety.

Taken at Peel Forest.

*Priocnemis diligens.* (Pl. IV. fig. 3.)

Female.—Length  $5\frac{1}{2}$ —6 lines. Black, the legs ferruginous. Head smooth, slightly shining, very minutely and delicately punctured, an impressed line running from the anterior ocellus to the insertion of the antennæ; the front thinly covered with golden pile; the mandibles ferruginous beyond the middle, with the apex black. Thorax slightly shining; the sides and the metathorax with a thin faintly golden pile, frequently obliterated on the metathorax; wings fulvo-hyaline, but fuscous beyond the stigma; the nervures pale ferruginous at the hyaline portion of the wings; the claw-joint of the tarsi black; the coxæ black. Abdomen smooth and shining, with the extreme apex ferruginous.

Var. B.—The abdomen with irregular ferruginous stains.

Three specimens examined.

Taken at Peel Forest.

*Priocnemis marginatus.* (Pl. IV. fig. 2.)

Female.—Length  $4\frac{1}{4}$ — $6\frac{3}{4}$  lines. Head and thorax black, abdomen ferruginous. The head clothed with short decumbent golden pubescence; a central ovate spot on the clypeus and the mandibles ferruginous, the latter black at their apex; the spot on the clypeus varies in shape, sometimes being angular or transverse; the antennæ black. Thorax clothed with a similar pubescence as the head, but usually more or less abraded on the disk; the legs ferruginous, with their coxæ black and covered with a thin golden pile; the claw-joint of the tarsi black; wings fulvo-hyaline, the nervures pale ferruginous; the apex of the wings with a broad dark fuscous border extending to the middle of the marginal cell and crossing both wings, but with a hyaline incision at the lower margin of the third discoidal cell. Abdomen smooth and shining.

Male.—Length  $4\frac{1}{2}$  lines. Only differs in being more slender, the antennæ not being convolute; the spot on the clypeus obsolete; the dark margin of the wing not incised; the fourth and following segments black.

Taken on the west coast, South Island.

CRABRONIDÆ.

*Rhopalum perforator.*

Female.—Length  $4\frac{1}{2}$ —6 lines. Black and shining, the legs variegated with yellow. Head very closely and finely

punctured; an impressed line runs from the anterior ocellus to the antennæ; the clypeus covered with bright silvery pubescence; the mandibles and scape of the antennæ yellow, the latter sometimes with more or less of black behind. Thorax closely and very finely punctured; the metathorax with a deep longitudinal central channel; the enclosed triangular space at its base impunctate; the space beyond smooth, and with only a few very delicate punctures; just above the insertion of the abdomen a few transverse striæ; the sides with a little silvery-white pubescence; wings subhyaline, darkest towards their apex; the post-scutellum yellow, sometimes two yellow spots on the scutellum; the anterior femora, except at the base, the tibiæ, the basal and apical joints of the tarsi, yellow; the intermediate legs, with the apical half of the femora beneath, the tibiæ at the base and more or less in front, and the base of the first joint of the tarsi, yellow; the posterior tibiæ clavate, and with a few spines on the outer margin of the club yellow at their base. Abdomen clavate, smooth and shining; the apical segment punctured and margined laterally.

Male.—Very like the female; differs in having the flagellum fulvous beneath, beyond the second joint, in other respects the same.

The second and third segments of the abdomen are sometimes more or less ferruginous.

*Rhopalum carbonaria*, Smith, Cat. Hym. Ins. pt. iv. 424, is figured; it resembles the *R. perforator*, but is a larger and more conspicuous insect (Pl. IV. fig. 7, ♀).

## ANDRENIDÆ.

### *Prosopis agilis*.

Female.—Length  $3\frac{1}{2}$  lines. Black; head subopaque, very closely and finely punctured; when viewed in front, nearly quadrate; a yellow macula on each side of the face which is broad and truncate opposite the insertion of the antennæ, and narrows to a point at the base of the mandibles; the flagellum, except two or three of the basal joints, fulvous beneath. Thorax slightly shining, very finely and closely punctured above; the metathorax smooth, shining and impunctate; wings subhyaline, the nervures black; an interrupted line on the collar, and the tubercles, yellow. Abdomen elongate-ovate, smooth and shining.

*Prosopis relegatus.*

Male.—Length  $3\frac{1}{2}$  lines. Black; head subopaque, very closely and finely punctured; the clypeus and inner orbits of the eyes, as high as opposite the insertion of the antennæ, yellowish-white; the mandibles with a longitudinal white stripe. Thorax: the disk closely and finely punctured; the metathorax with a triangular enclosed space at its base, which at its basal margin has a series of abbreviated striæ; a spot on each side of the collar, and the tubercles, yellow; wings subhyaline and iridescent, the nervures black; the first recurrent nervure uniting with the first transverso-medial nervure; the second recurrent received near the apex of the second submarginal cell; the calcaria pale testaceous. Abdomen oblong-ovate, shining; towards the base very finely punctured.

*Prosopis capitosus.*

Female.—Length 3 lines. Black, the head nearly quadrate above, slightly narrowed anteriorly towards the clypeus, closely and finely punctured; the flagellum, except the three basal joints, fulvous beneath; a small lunate yellow spot on each side of the face at the lower orbit of the eyes. Thorax ovate, very finely punctured; a minute spot on each side of the collar, and the tubercles, yellow; metathorax smooth and slightly shining; wings subhyaline, the nervures black; the first recurrent nervure uniting with the first transverso-medial nervure; the second recurrent received near the apex of the second submarginal cell; all the calcaria pale testaceous. Abdomen ovate, smooth and shining.

*Dasycolletes vestitus.*

Female.—Length  $5\frac{1}{2}$  lines. Head and thorax shining black, the abdomen dark blue. Head: below the antennæ covered with white pubescence, above is a little that is fuscous; on the cheeks and the head behind it is cinereous; ocelli in a curve on the vertex. Thorax: the mesothorax and scutellum with fine distant punctures; the pubescence on the sides of the thorax above fuscous, that beneath griseous; the femora fringed beneath with the same; the posterior coxæ with a white floccus; the pubescence on the posterior tibiæ black exteriorly, interiorly nearly white; on the basal joint of the posterior tarsi it is yellowish-white within; the calcariae and claws of the tarsi pale

testaceous; wings hyaline, the nervures dark fuscous. Abdomen with fine shallow punctures, leaving the apical margins of the segments glabrous; at the apex a little black pubescence.

Male.—Length 4 lines. Very like the female; its general pubescence hoary; on the clypeus, cheeks and thorax beneath it is white; wings hyaline, with the nervures testaceous.

Taken at Wellington, North Island.

*Lamprocolletes fulvescens.*

Female.—Length  $5\frac{1}{4}$  lines. Black; the front clothed with dense fulvous pubescence, palest on the clypeus; the cheeks have a pale fulvous pubescence; the ocelli in a curve on the vertex, which is shining. Thorax: the mesothorax shining and punctured, clothed with fulvous pubescence, which is sparing on the disk; palest on the sides, beneath, and on the legs; the apical joints of the tarsi rufo-testaceous; the posterior trochanters with a floccus of pale pubescence, that on the tibiae dense and fulvous; the calcaria pale testaceous; wings hyaline and iridescent, the nervures pale rufo-testaceous. Abdomen ovate and shining; the apical margins of the segments narrowly testaceous and thinly fringed with fulvous pubescence; the apical segment with a bright fulvous fimbria.

*Halictus familiaris.*

Female.—Length  $2\frac{3}{4}$  lines. Black; the head and thorax above very closely and delicately punctured, and slightly shining; the clypeus somewhat produced, shining, and with a few strong punctures; the tips of the mandibles rufo-testaceous; the flagellum rufo-piceous beneath. Thorax delicately punctured above; the metathorax truncate, with the margins rounded, at the base above finely rugose; wings hyaline, iridescent, with the stigma and nervures testaceous; legs with glittering, silvery-white pubescence; the calcaria pale testaceous. Abdomen oblong-ovate, shining, with the apical margins of the segments narrowly rufo-testaceous; beneath they are fringed with white hairs; the apical portion of the abdomen with a thin, short, white pubescence, which becomes dense at the sides of the anal rima.



EXPLANATION OF PLATE IV.

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1. *Mesostenus albopictus*.
  2. *Priocnemis marginatus*.
  3. „ *diligens*.
  4. *Ithyssa antipodum*.
  5. *Ichneumon perfidiosus*.
  6. *Derecyrtia deceptus*.
  7. *Rhopalum carbonaria*, ♀.
  8. *Fenus unguicularis*.
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